

81. Mar. 14, 19:06, very feeble.
 82. Mar. 14, 19:09, very feeble.
 83. Mar. 15, 22:16, very feeble. Kilauea Caldera.
 84-1427. Mar. 16-31, Earthquakes originating mostly off the south shore of the island, and mostly very feeble to slight. Moderate and strong earthquakes of this group and earthquakes of other origin are listed separately below.
 88. Mar. 16, 15:53, feeble, felt in Volcano district. Kilauea Caldera, shallow.
 95. Mar. 16, 22:45, very feeble. Hilina fault system, 2 miles west of Kupaahu, at 19°19.7'N, 155°02.0'W.
 148. Mar. 17, 17:58, strong, felt at Naalehu, caused small tsunami at Kalapana. Off south shore, at 19°07.5'N, 155°02.0'W.
 167. Mar. 18, 04:50, very feeble. Kilauea.
 183. Mar. 18, 08:03, very feeble. Kilauea Caldera.
 199. Mar. 18, 10:53, moderate, felt at Naalehu. Off south shore, at 19°00.1'N, 155°19.8'W.
 212. Mar. 18, 13:01, moderate. Off south shore at 19°06.1'N, 155°20.5'W.
 220. Mar. 18, 14:18, strong. Off south shore, at 19°04.6'N, 155°24.7'W.
 275. Mar. 19, 02:55, strong, felt at Naalehu. Off south shore, at 19°06.5'N, 155°01.8'W.
 283. Mar. 19, 08:05, very feeble. Kilauea.
 340. Mar. 19, 15:51, strong. Off south shore, at 19°02.0'N, 155°20.1'W.
 385. Mar. 20, 01:22, strong. Off south shore, at 19°02.3'N, 155°18.5'W.
 414. Mar. 20, 09:51, strong, felt at Naalehu. Off south shore, at 19°03.2'N, 155°14.7'W.
 466. Mar. 20, 20:16, moderate, felt at Naalehu. Off south shore, at 19°03.5'N, 155°23.7'W.
 494. Mar. 20, 23:48, moderate, felt at Naalehu. Off south shore, at 19°02.2'N, 155°23.6'W.
 524. Mar. 21, 04:35, strong, felt at Naalehu. Off south shore, at 19°02.7'N, 155°13.9'W.
 567. Mar. 21, 14:25, moderate. Off south shore, at 19°04.3'N, 155°14.3'W.
 649. Mar. 22, 02:05, strong, felt at Naalehu. Off south shore, at 19°02.5'N, 155°12.1'W.
 668. Mar. 22, 06:19, moderate. Off south shore, at 19°07.8'N, 155°00.4'W.
 762. Mar. 22, 19:20, moderate, felt at Naalehu. Off south shore, at 19°06.4'N, 155°03.9'W.
 808. Mar. 23, 06:52, moderate, felt at Naalehu and Pahala. Off south shore, at 19°11.7'N, 154°55.0'W.
 842. Mar. 23, 15:05, moderate, felt at Naalehu and Kapapala. Off south shore, at 19°02.8'N, 155°14.4'W.
 894. Mar. 24, 02:02, moderate, felt at Naalehu. Off south shore, at 19°08.0'N, 155°01.7'W.
 927. Mar. 24, 13:29, strong, felt at Naalehu. Off south shore, at 19°06.3'N, 155°02.4'W.
 954. Mar. 25, 00:30, moderate. Off south shore, at 19°01.3'N, 155°17.0'W.
 965. Mar. 25, 07:04, strong, felt at Naalehu. Off south shore, at 19°04.3'N, 155°05.8'W.
 979. Mar. 25, 09:17, strong, felt at Naalehu. Off south shore, at 19°05.2'N, 155°05.1'W.
 1016. Mar. 26, 04:40, moderate, felt at Naalehu. Off south shore, at 19°03.3'N, 155°13.8'W.
 1083. Mar. 27, 04:31, moderate, felt at Naalehu. Off south shore, at 19°03.1'N, 155°12.6'W.
 1128. Mar. 27, 22:44, moderate, felt at Naalehu and Pahala. Off south shore, at 19°02.2'N, 155°13.9'W.
 1166. Mar. 28, 11:57, moderate, felt at Naalehu. Off south shore, at 19°03.3'N, 155°11.5'W.
 1200. Mar. 29, 02:42, moderate, felt at Naalehu. Off south shore.
 1317. Mar. 30, 13:53, strong. Off south shore.
 1422. Mar. 31, 22:00, strong, felt at Naalehu. Off south shore, at 19°02.2'N, 155°13.4'W.

VOLCANO NOTES AND NEWS

CONDITIONS AT PARICUTIN VOLCANO

A letter from Celedonio Gutierrez, the Geological Survey's permanent observer at Parícutin volcano, Mexico, addressed to Ray E. Wilcox of the Geological Survey's volcano investigations unit, tells of unprecedented absence of activity. During January and February there were several explosions stronger than any previously observed during the life of Parícutin. On February 25 eruptive activity ceased and was renewed only by a few weak surges between that time and March 4. From March 4 until the date of the letter, March 29, the volcano remained totally inactive, with not even noises or fume emission. A subsequent letter confirms total inactivity through April 29, 1952. Wilcox states that this is the first complete cessation of activity in the 9 years since the birth of Parícutin.

ALASKAN VOLCANOES

Austin E. Jones, seismologist in charge of the Geological Survey's Aleutian volcano observatory on Adak Island, has supplied the following notes obtained during January from Capt. V. Seidelhuber of a U. S. Navy tanker operating in Aleutian waters.

April 1951—On a moonlit night, glow was reflected high

above Shishaldin volcano, the most active vent on Unimak Island.

October 1951—Lower slopes of Akutan showed fresh black ash on top of the snow, but the summit of the volcano was concealed in cloud.

December 20, 1951—A high column of white smoke (steam) rose above the summit of Makushin volcano, Unalaska Island, and the snow on the volcano was gray with ash.

January 17, 1952—A column of grayish-brown fume was rising from the crater on the summit of Gareloi volcano.

Tsunami of March 3, 1952, in Hawaii

A violent earthquake off the east coast of the Japanese island of Hokkaido, at 01:23 on March 4 (Greenwich Civil time), caused extensive property damage and heavy casualties. It was accompanied by a tsunami ("tidal wave") which contributed greatly to the damage. This wave was recorded on the tide gauge in Honolulu harbor. According to Comdr. C. A. George, Supervisor of the Pacific District, U. S. Coast and Geodetic Survey, the arrival time at Honolulu was 11:15 Greenwich Civil time, or 23:15 on March 3 by Hawaiian Standard time, and the amplitude of the wave was about 6 inches. The wave was recorded at Hilo also, with about the same amplitude. The wave traveled from Japan to Hawaii at an average speed of approximately 450 miles an hour.